

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/507, 156A  
Source: JFWP  
Date Processed by STIC: 06/29/2006

# ***ENTERED***



IFWP

## RAW SEQUENCE LISTING

DATE: 06/29/2006

PATENT APPLICATION: US/10/507,156A

TIME: 10:14:17

Input Set : A:\N0008001.APP

Output Set: N:\CRF4\06292006\J507156A.raw

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3 <110> APPLICANT: OKU, TADATAKE
4     NISHIO, TOSHIYUKI
5     KAWACHI, RYU
6     SURUGA, KOHEI
8 <120> TITLE OF INVENTION: NOVEL HEME PEPTIDE
10 <130> FILE REFERENCE: N0008.0001
12 <140> CURRENT APPLICATION NUMBER: 10/507,156A
13 <141> CURRENT FILING DATE: 2004-09-07
15 <150> PRIOR APPLICATION NUMBER: PCT/JP03/02394
16 <151> PRIOR FILING DATE: 2003-02-28
18 <150> PRIOR APPLICATION NUMBER: JP 2002-058086
19 <151> PRIOR FILING DATE: 2002-03-04
21 <160> NUMBER OF SEQ ID NOS: 18
23 <170> SOFTWARE: PatentIn Ver. 3.2
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 104
27 <212> TYPE: PRT
28 <213> ORGANISM: Equus caballus
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32   1           5           10           15
34 Cys His Thr Val Glu Lys Gly Gly Lys His Lys Thr Gly Pro Asn Leu
35           20           25           30
37 His Gly Leu Phe Gly Arg Lys Thr Gly Gln Ala Pro Gly Phe Thr Tyr
38           35           40           45
40 Thr Asp Ala Asn Lys Asn Lys Gly Ile Thr Trp Lys Glu Glu Thr Leu
41           50           55           60
43 Met Glu Tyr Leu Glu Asn Pro Lys Lys Tyr Ile Pro Gly Thr Lys Met
44   65           70           75           80
46 Ile Phe Ala Gly Ile Lys Lys Lys Thr Glu Arg Glu Asp Leu Ile Ala
47           85           90           95
50 Tyr Leu Lys Lys Ala Thr Asn Glu
51           100
54 <210> SEQ ID NO: 2
55 <211> LENGTH: 85
56 <212> TYPE: PRT
57 <213> ORGANISM: Porphyra yezoensis
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63 Cys His Ala Gly Gly Asn Asn Ala Ile Met Pro Asp Lys Thr Leu Lys
64           20           25           30
66 Lys Asp Val Leu Glu Ala Asn Ser Met Asn Thr Ile Asp Ala Ile Thr

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67          35          40          45
69 Tyr Gln Val Gln Asn Gly Lys Asn Ala Met Pro Ala Phe Gly Gly Arg
70          50          55          60
72 Leu Val Asp Glu Asp Ile Glu Asp Ala Ala Asn Tyr Val Leu Ser Gln
73 65          70          75          80
75 Ser Glu Lys Gly Trp
76          85
79 <210> SEQ ID NO: 3
80 <211> LENGTH: 15
81 <212> TYPE: PRT
82 <213> ORGANISM: Porphyra yezoensis
84 <400> SEQUENCE: 3
85 Phe Ser Ala Asn Cys Ala Ala Cys His Ala Gly Gly Asn Asn Ala
86 1          5          10          15
89 <210> SEQ ID NO: 4
90 <211> LENGTH: 9
91 <212> TYPE: PRT
92 <213> ORGANISM: Equus caballus
94 <400> SEQUENCE: 4
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96 1          5
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100 <211> LENGTH: 22
101 <212> TYPE: PRT
102 <213> ORGANISM: Equus caballus
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106 1          5          10          15
108 Lys Thr Gly Pro Asn Leu
109          20
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113 <211> LENGTH: 65
114 <212> TYPE: PRT
115 <213> ORGANISM: Equus caballus
117 <400> SEQUENCE: 6
118 Gly Asp Val Glu Lys Gly Lys Lys Ile Phe Val Gln Lys Cys Ala Gln
119 1          5          10          15
122 Cys His Thr Val Glu Lys Gly Gly Lys His Lys Thr Gly Pro Asn Leu
123          20          25          30
125 His Gly Leu Phe Gly Arg Lys Thr Gly Gln Ala Pro Gly Phe Thr Tyr
126          35          40          45
128 Thr Asp Ala Asn Lys Asn Lys Gly Ile Thr Trp Lys Glu Glu Thr Leu
129          50          55          60
131 Met
132 65
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136 <211> LENGTH: 9
137 <212> TYPE: PRT
138 <213> ORGANISM: Equus caballus

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147 <212> TYPE: PRT
148 <213> ORGANISM: Porphyra yezoensis
150 <400> SEQUENCE: 8
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152   1               5               10               15
154 Ile Met Pro Asp Lys
155               20
158 <210> SEQ ID NO: 9
159 <211> LENGTH: 17
160 <212> TYPE: PRT
161 <213> ORGANISM: Equus caballus
163 <400> SEQUENCE: 9
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167 Glu
171 <210> SEQ ID NO: 10
172 <211> LENGTH: 29
173 <212> TYPE: PRT
174 <213> ORGANISM: Porphyra yezoensis
176 <400> SEQUENCE: 10
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181               20               25
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185 <211> LENGTH: 75
186 <212> TYPE: PRT
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190 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Formula
191 Peptide
193 <220> FEATURE:
194 <221> NAME/KEY: MISC_FEATURE
195 <222> LOCATION: (1)..(20)
196 <223> OTHER INFORMATION: this region may encompass 1-20 variable amino acids or
197 not be present; see specification as filed for detailed
198 description of preferred embodiments
200 <220> FEATURE:
201 <221> NAME/KEY: MISC_FEATURE
202 <222> LOCATION: (22)..(23)
203 <223> OTHER INFORMATION: any amino acid
205 <220> FEATURE:
206 <221> NAME/KEY: MISC_FEATURE
207 <222> LOCATION: (25)

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 211 <221> NAME/KEY: MISC\_FEATURE  
 212 <222> LOCATION: (26)..(75)  
 213 <223> OTHER INFORMATION: this region may encompass 1-50 variable amino acids or  
 214 not be present; see specification as filed for detailed  
 215 description of preferred embodiments  
 217 <400> SEQUENCE: 11

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 219 1 5 10 15  
 221 Xaa Xaa Xaa Xaa Cys Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 222 20 25 30  
 224 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 225 35 40 45  
 227 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 228 50 55 60  
 230 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 231 65 70 75

234 <210> SEQ ID NO: 12  
 235 <211> LENGTH: 75  
 236 <212> TYPE: PRT  
 237 <213> ORGANISM: Artificial Sequence  
 239 <220> FEATURE:  
 240 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Formula  
 241 Peptide  
 243 <220> FEATURE:  
 244 <221> NAME/KEY: MISC\_FEATURE  
 245 <222> LOCATION: (1)..(20)  
 246 <223> OTHER INFORMATION: this region may encompass 1-20 variable amino acids or  
 247 not be present; see specification as filed for detailed  
 248 description of preferred embodiments  
 250 <220> FEATURE:  
 251 <221> NAME/KEY: MISC\_FEATURE  
 252 <222> LOCATION: (22)..(23)  
 253 <223> OTHER INFORMATION: Ala, Gln, Lys, Arg or Val  
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 256 <221> NAME/KEY: MISC\_FEATURE  
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 258 <223> OTHER INFORMATION: His, Lys or Arg  
 260 <220> FEATURE:  
 261 <221> NAME/KEY: MISC\_FEATURE  
 262 <222> LOCATION: (26)..(75)  
 263 <223> OTHER INFORMATION: this region may encompass 1-50 variable amino acids or  
 264 not be present; see specification as filed for detailed  
 265 description of preferred embodiments  
 267 <400> SEQUENCE: 12

W--> 268 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 269 1 5 10 15  
 271 Xaa Xaa Xaa Xaa Cys Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

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Input Set : A:\N0008001.APP

Output Set: N:\CRF4\06292006\J507156A.raw

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272          20          25          30
274 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
275          35          40          45
277 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
278          50          55          60
280 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
281 65          70          75
284 <210> SEQ ID NO: 13
285 <211> LENGTH: 75
286 <212> TYPE: PRT
287 <213> ORGANISM: Artificial Sequence
289 <220> FEATURE:
290 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic Formula
291 Peptide
293 <220> FEATURE:
294 <221> NAME/KEY: MISC_FEATURE
295 <222> LOCATION: (1)..(20)
296 <223> OTHER INFORMATION: this region may encompass 1-20 variable amino acids or
297 not be present; see specification as filed for detailed
298 description of preferred embodiments
300 <220> FEATURE:
301 <221> NAME/KEY: MISC_FEATURE
302 <222> LOCATION: (23)
303 <223> OTHER INFORMATION: Gln or Ala
305 <220> FEATURE:
306 <221> NAME/KEY: MISC_FEATURE
307 <222> LOCATION: (26)..(75)
308 <223> OTHER INFORMATION: this region may encompass 1-50 variable amino acids or
309 not be present; see specification as filed for detailed
310 description of preferred embodiments
312 <400> SEQUENCE: 13
W--> 313 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
314 1          5          10          15
316 Xaa Xaa Xaa Xaa Cys Ala Xaa Cys His Xaa Xaa Xaa Xaa Xaa Xaa Xaa
317          20          25          30
319 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
320          35          40          45
322 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
323          50          55          60
325 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
326 65          70          75
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330 <211> LENGTH: 4
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332 <213> ORGANISM: Artificial Sequence
334 <220> FEATURE:
335 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
336 peptide
338 <400> SEQUENCE: 14

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RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/507,156A

DATE: 06/29/2006  
TIME: 10:14:18

Input Set : A:\N0008001.APP  
Output Set: N:\CRF4\06292006\J507156A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:11; Xaa Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,22,23  
Seq#:11; Xaa Pos. 25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43  
Seq#:11; Xaa Pos. 44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62  
Seq#:11; Xaa Pos. 63,64,65,66,67,68,69,70,71,72,73,74,75  
Seq#:12; Xaa Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,22,23  
Seq#:12; Xaa Pos. 25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43  
Seq#:12; Xaa Pos. 44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62  
Seq#:12; Xaa Pos. 63,64,65,66,67,68,69,70,71,72,73,74,75  
Seq#:13; Xaa Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,23,26  
Seq#:13; Xaa Pos. 27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45  
Seq#:13; Xaa Pos. 46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64  
Seq#:13; Xaa Pos. 65,66,67,68,69,70,71,72,73,74,75

VERIFICATION SUMMARY

DATE: 06/29/2006

PATENT APPLICATION: US/10/507,156A

TIME: 10:14:18

Input Set : A:\N0008001.APP

Output Set: N:\CRF4\06292006\J507156A.raw

L:218 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0  
M:341 Repeated in SeqNo=11  
L:268 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0  
M:341 Repeated in SeqNo=12  
L:313 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0  
M:341 Repeated in SeqNo=13